

## General

### Title

Stroke and stroke rehabilitation: percentage of patients aged 18 years and older with the diagnosis of ischemic stroke or intracranial hemorrhage who received DVT prophylaxis by end of hospital day 2.

### Source(s)

American Academy of Neurology, American College of Radiology, Physician Consortium for Performance Improvement®®, National Committee for Quality Assurance. Stroke and stroke rehabilitation physician performance measurement set. Chicago (IL): American Medical Association (AMA), National Committee for Quality Assurance (NCQA); 2009 Feb. 20 p.

## Measure Domain

### Primary Measure Domain

#### Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the percentage of patients aged 18 years and older with the diagnosis of ischemic stroke OR intracranial hemorrhage who received deep vein thrombosis (DVT) prophylaxis by end of hospital day 2.

To promote a comprehensive approach to performance improvement, the Stroke and Stroke Rehabilitation Measurement Set is intended for use in its entirety when measuring clinical quality in the care of eligible patients. Full implementation of this measurement set for patients with a diagnosis of ischemic stroke or transient ischemic attack (TIA) should always include the Physician Consortium for Performance Improvement® measure, [Radiology: Stenosis Measurement in Carotid Imaging Reports](#).

## Rationale

Patients on bed rest are at high risk for deep vein thrombosis (DVT). DVT prevention is important for all patients who have suffered a stroke or an intracranial hemorrhage and may have decreased mobility. The intent of this measure is to assure that adequate DVT prophylaxis is received for either diagnosis. As noted in the clinical recommendation statements\*, the appropriate *type* of prophylaxis differs by diagnosis. Anticoagulants are generally contraindicated in patients with intracranial hemorrhage. These patients are still at risk for DVT so they should receive prophylaxis with mechanical devices. Low-dose subcutaneous heparin may be initiated on the second day after onset of the hemorrhage.

\*The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

Subcutaneous unfractionated heparin, low-molecular weight heparins (LMWHs), and heparinoids may be considered for DVT prophylaxis in at-risk patients with acute ischemic stroke, recognizing that nonpharmacologic treatments for DVT prevention also exist. (American Academy of Neurology/American Stroke Association [AAN/ASA])

The use of intermittent external compression stockings or aspirin for patients who cannot receive anticoagulants is strongly recommended to prevent deep vein thrombosis among immobilized patients. (ASA)

For acute stroke patients with restricted mobility, we recommend prophylactic low-dose subcutaneous heparin or low-molecular-weight heparins or heparinoids. In patients with an acute intracranial hemorrhage (ICH), we recommend the initial use of intermittent pneumatic compression for the prevention of DVT and pulmonary embolism (PE). In stable patients, we suggest low-dose subcutaneous heparin may be initiated as soon as the second day after the onset of the hemorrhage. (American College of Chest Physicians [ACCP])

## Primary Clinical Component

Ischemic stroke; intracranial hemorrhage; deep vein thrombosis (DVT) prophylaxis; low-molecular weight heparin (LMWH); low-dose unfractionated heparin (LDUH); intravenous heparin; low-dose subcutaneous heparin; intermittent pneumatic compression devices

## Denominator Description

All patients aged 18 years and older with the diagnosis of ischemic stroke OR intracranial hemorrhage (see the related "Denominator Inclusions/Exclusions" field)

## Numerator Description

Patients who received deep vein thrombosis (DVT) prophylaxis\* by end of hospital day 2

\*DVT Prophylaxis: low-molecular weight heparin (LMWH), OR low-dose unfractionated heparin (LDUH), OR intravenous heparin, OR low-dose subcutaneous heparin, OR intermittent pneumatic compression devices

## Evidence Supporting the Measure

### Evidence Supporting the Criterion of Quality

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

## Evidence Supporting Need for the Measure

### Need for the Measure

Use of this measure to improve performance

## Evidence Supporting Need for the Measure

McGlynn EA, Asch SM, Adams J, Keeseey J, Hicks J, DeCristofaro A, Kerr EA. The quality of health care delivered to adults in the United States. N Engl J Med. 2003 Jun 26;348(26):2635-45. [PubMed](#)

Thom T, Haase N, Rosamond W, Howard VJ, Rumsfeld J, Manolio T, Zheng ZJ, Flegal K, O'Donnell C, Kittner S, Lloyd-Jones D, Goff DC Jr, Hong Y, Adams R, Friday G, Furie K, Gorelick P, Kissela B, Marler J, Meigs J, Roger V, Sidney S, Sorlie P, Steinberger J, Wasserthiel-Smoller S, Wilson M, Wolf P. Heart disease and stroke statistics--2006 update: a report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Circulation. 2006 Feb 14;113(6):e85-151. [PubMed](#)

## State of Use of the Measure

### State of Use

Current routine use

### Current Use

Internal quality improvement

National reporting

## Application of Measure in its Current Use

### Care Setting

Hospitals

### Professionals Responsible for Health Care

Advanced Practice Nurses

Physician Assistants

Physicians

### Lowest Level of Health Care Delivery Addressed

Individual Clinicians

### Target Population Age

Age greater than or equal to 18 years

### Target Population Gender

Either male or female

## Stratification by Vulnerable Populations

Unspecified

## Characteristics of the Primary Clinical Component

### Incidence/Prevalence

Unspecified

### Association with Vulnerable Populations

Unspecified

### Burden of Illness

Unspecified

### Utilization

Unspecified

### Costs

Unspecified

## Institute of Medicine (IOM) Healthcare Quality Report Categories

### IOM Care Need

Getting Better

### IOM Domain

Effectiveness

## Data Collection for the Measure

### Case Finding

Users of care only

### Description of Case Finding

All patients aged 18 years and older with the diagnosis of ischemic stroke OR intracranial hemorrhage

## Denominator Sampling Frame

Patients associated with provider

## Denominator Inclusions/Exclusions

### Inclusions

All patients aged 18 years and older with the diagnosis of ischemic stroke OR intracranial hemorrhage

### Exclusions

Documentation of medical reason(s) (including physician documentation that patient is ambulatory) for not receiving deep vein thrombosis (DVT) prophylaxis by end of hospital day 2

Documentation of patient reason(s) for not receiving DVT prophylaxis by end of hospital day 2

## Relationship of Denominator to Numerator

All cases in the denominator are equally eligible to appear in the numerator

## Denominator (Index) Event

Clinical Condition

Institutionalization

## Denominator Time Window

Time window brackets index event

## Numerator Inclusions/Exclusions

### Inclusions

Patients who received deep vein thrombosis (DVT) prophylaxis\* by end of hospital day 2

\*DVT Prophylaxis: low-molecular weight heparin (LMWH), OR low-dose unfractionated heparin (LDUH), OR intravenous heparin, OR low-dose subcutaneous heparin, OR intermittent pneumatic compression devices

### Exclusions

None

## Measure Results Under Control of Health Care Professionals, Organizations and/or Policymakers

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

## Numerator Time Window

Fixed time period

## Data Source

Administrative data

Medical record

## Level of Determination of Quality

Individual Case

## Pre-existing Instrument Used

Unspecified

## Computation of the Measure

### Scoring

Rate

### Interpretation of Score

Better quality is associated with a higher score

### Allowance for Patient Factors

Unspecified

### Standard of Comparison

Internal time comparison

## Evaluation of Measure Properties

### Extent of Measure Testing

Unspecified

## Identifying Information

### Original Title

Measure #1: deep vein thrombosis prophylaxis (DVT) for ischemic stroke or intracranial hemorrhage.

### Measure Collection Name

## Measure Set Name

Stroke and Stroke Rehabilitation Physician Performance Measurement Set

## Submitter

American Medical Association on behalf of the American Academy of Neurology, American College of Radiology, Physician Consortium for Performance Improvement®, and National Committee for Quality Assurance - Medical Specialty Society

## Developer

American Academy of Neurology - Medical Specialty Society

American College of Radiology - Medical Specialty Society

National Committee for Quality Assurance - Health Care Accreditation Organization

Physician Consortium for Performance Improvement® - Clinical Specialty Collaboration

## Funding Source(s)

Unspecified

## Composition of the Group that Developed the Measure

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## Financial Disclosures/Other Potential Conflicts of Interest

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

## Endorser

National Quality Forum - None

## Included in

Ambulatory Care Quality Alliance

Physician Quality Reporting Initiative

## Adaptation

This measure was harmonized to the extent possible with hospital level measures for stroke developed by The Joint Commission.

## Parent Measure

Unspecified

## Release Date

2006 Sep

## Revision Date

2009 Feb

## Measure Status

This is the current release of the measure.

The Physician Consortium for Performance Improvement reaffirmed the currency of this measure in November 2010.

## Source(s)

American Academy of Neurology, American College of Radiology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Stroke and stroke rehabilitation physician performance measurement set. Chicago (IL): American Medical Association (AMA), National Committee for Quality Assurance (NCQA); 2009 Feb. 20 p.

## Measure Availability

The individual measure, "Measure #1: Deep Vein Thrombosis Prophylaxis (DVT) for Ischemic Stroke or Intracranial Hemorrhage," is published in the "Stroke and Stroke Rehabilitation: Physician Performance Measurement Set." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: [www.physicianconsortium.org](http://www.physicianconsortium.org) .

For further information, please contact AMA staff by e-mail at [cqi@ama-assn.org](mailto:cqi@ama-assn.org).



## NQMC Status

This NQMC summary was completed by ECRI Institute on September 13, 2007. The information was verified by the measure developer on October 26, 2007. This NQMC summary was edited by ECRI Institute on September 28, 2009. The information was reaffirmed by the measure developer on November 17, 2010.

## Copyright Statement

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